

# Cork Institute of Technology

## Bachelor of Science in Food Science & Technology - Award

(NFQ Level 7 )

Spring 2007

### Quality Management Systems

(Time: 3 Hours)

Answer a total of FIVE questions.  
Answer TWO questions from Section A  
Answer THREE questions from Section B

Examiners: Dr. T. Beresford  
Ms. A. Murphy  
Ms. A. Ward

### Section A

- Q1. Total Quality Management (TQM) is a proven systematic approach to the planning and management of activities. Discuss this statement under the following headings:
- (a) Meeting customer requirements at minimum cost. (10 marks)
  - (b) Functional analysis as an important tool for improvement within each department. (10 marks)
- Q2. Write short notes on TWO of the following:
- (a) General GMP requirements
  - (b) Teamwork for quality
  - (c) Benchmarking
  - (d) ISO 9001:2000 (20 marks)

- Q3. (a) Define each of the following quality cost categories:
- (i) Cost of conformance.
  - (ii) Cost of non-conformance.
- Include examples in your answer. (6 marks)
- (b) Statistical Process Control (SPC) can be defined as a simple effective approach to problem solving and process improvement.
- Discuss this statement under the following headings:
- (i) Understanding the process and process mapping. (7 marks)
  - (ii) Statistical Process Control tools for data collection and analysis. (7 marks)

## Section B

- Q4. (a) The following is a list of specifications for a computer currently available in the marketplace.
- Describe in detail **three** of the following specifications:
- (i) Intel Core 2 Duo Processor (2.13GHz, 1066Mhz FSB)
  - (ii) 320GB Hard Drive
  - (iii) DVD R
  - (iv) 1024MB RAM (6 marks)
- (b) List the main reasons why new products fail in the marketplace. (6 marks)
- (c) Discuss in detail, with the aid of a diagram, the relationship between demand and supply in the marketplace. Outline the main factors that can cause a fluctuation in this relationship. (8 marks)

- Q5. (a) Discuss the main classifications of operating systems available on modern computers. (6 marks)
- (b) Describe briefly the main legal requirements involved in setting up a limited company. (6 marks)
- (c) Write a brief note on **two** of the following in relation to consumer protection in the marketplace.
- (i) Consumer Information Act 1978
  - (ii) Sale of Goods and Supply of Services Act 1980
  - (iii) General Product Safety Directive
- (8 marks)
- Q6. (a) Discuss the role of a laboratory information management system (LIMS) in a Quality Control laboratory. (8 marks)
- (b) Write a brief note on the process of hazard analysis and risk assessment in relation to HACCP application in a food business. (6 marks)
- (c) Discuss the process of idea generation & development in relation to the process of new product development. (6 marks)
- Q7. (a) Discuss the main forms of protectionism that exist in world trade which inhibit the free movement of goods. (8 marks)
- (b) Outline the main information that market research can provide for a business. (6 marks)
- (c) Discuss the main requirements for long term sources of finance in a business. List the main sources of long term finance for a business. (6 marks)